Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Original) A method of fabricating a nanostructure, the method comprising:

coating a nanostructure with a passivation layer; and

altering the passivation layer at a first position.

2. (Original) The method of claim 2 wherein coating the nanostructure comprises covering a carbon nanotube selected from the group consisting of a single-wall carbon nanotube (SWNT), a multi-wall carbon nanotube, and a bundle or rope of SWNTs.

3. (Original) The method of claim 1 wherein altering the passivation layer comprises bringing the first position into contact with a material to promote at least one of physiabsorption and chemisorption.

4. (Original) The method of claim 1 wherein altering the passivation layer comprises applying electrical energy to the nanostructure.

5. (Original) The method of claim 1 wherein coating the nanostructure comprises coating a single wall carbon nanotube (SWNT), and altering the passivation layer comprises removing the passivation layer to expose an end of the SWNT.

6. (Original) The method of claim 1 wherein coating the nanostructure comprises coating a single wall carbon nanotube (SWNT), and altering the passivation layer comprises applying electrical energy to the SWNT.

7. (Original) The method of claim 6 wherein the electrical energy is applied to the SWNT in at least one of, an oxidizing ambient to create a carboxylate group on the SWNT end, and an ambient comprising nitrogen to create an amine group on the SWNT end.

8. (Original) The method of claim 4 wherein application of the electrical energy alters at least one of a physical and chemical property of the passivation at the first position.

9. (Original) The method of claim 1 wherein coating the nanostructure comprises at least one of, forming a metallization layer, forming a polymer layer by electrochemical polymerization, forming a polymer layer by gas phase polymerization, and exposing the nanostructure to a polymer such as a surfactant.

10. (Original) The method of claim 1 further comprising attaching a material at the first position.

11. (Original) The method of claim 10 wherein attaching the material creates functional chemical specificity for the coated nanostructure.

12. (Original) The method of claim 10 wherein attaching the material comprises forming a covalent bond.

13. (Original) The method of claim 10 wherein attaching the material comprises attaching at least one of an enzyme and an enzymatic co-factor.

14. (Original) The method of claim 13 wherein attaching the enzyme comprises attaching the enzymatic co-factor and then reconstituting the enzyme about the co-factor.

15. (Original) The method of claim 10 wherein attaching the material comprises forming other than a covalent bond.

16. (Original) A device comprising:

a nanostructure having a surface; and

a passivation layer coating all but a unique site on the surface, the unique site exhibiting at least one of chemical, biological, electrical, and physical activity.

17. (Original) The device of claim 16 wherein the nanostructure comprises a carbon nanotube

18. (Original) The device of claim 17 wherein the carbon nanotube is selected from the group consisting of a single-wall carbon nanotube (SWNT), a multi-wall carbon nanotube, and a bundle or rope of SWNTs.

19. (Original) The device of claim 16 wherein the passivation layer comprises at least one of a polymer, a semiconductor, and a metal.

20. (Original) The device of claim 16 further comprising a moveable probe connected to the nanostructure.

21. (Original) The device of claim 16 wherein the moveable probe is selected from the group consisting of a scanning probe microscope (AFM), a nanoscanner, and a nanopositioner.

22. (Original) The device of claim 16 wherein the unique site comprises an exposed portion of the nanostructure in communication with a source of electrical power.

23. (Original) The device of claim 16 further comprising a material attached to the unique site.

24. (Original) The device of claim 23 wherein the material is selected from the group consisting of a carboxyl group, an amine group, and a molecule covalently bound to one of a carboxyl group and an amine group.

25. (Original) The device of claim 23 the material comprises a molecule bound at the unique site with a covalent bond.

26. (Original) The device of claim 23 the functional group comprises a molecule bound at the unique site with other than a covalent bond.

27. (Original) A method for interacting with a local environment, the method comprising:

providing a nanostructure having a surface coated by passivation excluding a unique site which exhibits at least one of chemical, biological, electrical, and physical activity; and

positioning the unique site in communication with the local environment.

28. (Original) The method of claim 27 wherein providing the nanostructure comprises providing a carbon nanotube selected from the group consisting of a single-wall carbon nanotube (SWNT), a multi-wall carbon nanotube, and a bundle or rope of SWNTs.

29. (Original) The method of claim 27 wherein the unique site is exposed to the local environment, and a changed electrical state of the nanostructure is monitored to identify an electrochemical state of the local environment.

30. (Original) The method of claim 27 wherein the unique site is exposed to the local environment, and an electrical state of the nanostructure is changed to alter an electrochemical state of the local environment.

31. (Original) The method of claim 27 wherein the unique site comprises an exposed tip of a carbon nanotube configured to be in communication with a source of electrical power.

32. (Original) The method of claim 27 wherein a functional molecule is bound to the unique site.

33. (Original) The method of claim 27 wherein introduction of the functional molecule to the local environment results in one of an optical, chemical, physical, and electrical change.

34. (Original) The method of claim 27 wherein the unique site is introduced to the local environment by translation of one of a scanning probe microscope, nanoscanner, and nanopositioner, to which the nanostructure is attached.